



Appendix D1



Source-Specific Revisions to Wisconsin's State Implementation Plan for Northern Engraving Corporation's Galesville and West Salem Facilities

Introduction

The State Implementation Plan (SIP) documents how Wisconsin Department of Natural Resources (DNR) meets its obligations to protect and enhance air quality. The SIP consists of many parts, each of which is approved by the United States Environmental Protection Agency (EPA) after allowing for public comment and a public hearing. Most parts of the SIP apply to all sources of air pollution in Wisconsin, while some "source-specific" parts of the SIP may apply to a single regulated entity. DNR is legally obligated to abide by all of the terms in the SIP.

Section XII (Operational Flexibility and Variances) of the Cooperative Environmental Agreement proposes to establish new requirements for two additional Northern Engraving Corporation facilities, one located in Galesville and one located in West Salem. The proposed new requirements would replace or revise certain requirements that might otherwise apply to that source. Some of the requirements to be replaced or revised are currently embodied in Wisconsin's SIP for meeting air quality objectives. In such cases, the proposed flexibility in the Environmental Cooperative Agreement cannot be granted by DNR unless the new requirements are first approved by EPA as source-specific revisions to the SIP.

The remainder of this Attachment identifies all the portions of the proposed Environmental Cooperative Agreement that DNR is submitting to EPA as proposed source-specific revisions to Wisconsin's SIP.

Source-Specific Revisions to Wisconsin's SIP

The provisions of this SIP revision apply to the following sources:

Northern Engraving Corporation's Galesville Facility
1200 W. Gale Avenue
Galesville, WI 54630
Operation Permit Number 662008930-F01

Northern Engraving Corporation's West Salem Facility
600 Brickl Road
West Salem, WI 54667

The Northern Engraving Galesville facility manufactures decorative plastic automotive trim and nameplates for the automotive and appliance industries. Operations include screening of plastic sheets, punch pressing, laser cutting and etching, inspection, spray touch-up, shipping and receiving.

The Northern Engraving West Salem facility manufactures plastic and metal decorative automotive trim. Operations include screen-printing, roll coating, spray coating, lithographic printing and pad printing processes.

The following portions of Section XII of the Environmental Cooperative Agreement (verbatim excerpts) are submitted as source-specific SIP revisions:

1. Item: Waiver from the requirement to obtain a construction permit prior to commencing construction of new process equipment, commencing modification of existing equipment, or relocating existing process equipment between the facilities covered by this Agreement.

Previous Requirements Superseded by this Agreement [source of the requirement]: Requirement to obtain a construction permit prior to construction, reconstruction, replacement, relocation of modification of a minor stationary source that is not otherwise exempt under s. NR 406.04, Wis. Adm. Code. [s. NR 406.03, Wis. Adm. Code]

New Requirement:

a. New Equipment Construction and Modification: The permittee may commence construction or modification (but not operation) of new process equipment prior to obtaining a construction permit, provided the following conditions are met. The following conditions do not apply if a proposed project is exempt from the requirement to obtain a construction permit, pursuant to s. NR 406.04, Wis. Adm. Code. [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

(1) The permittee shall submit the following information to the DNR, La Crosse Area Office, 3550 Mormon Coulee Road, Room 104, La Crosse, WI, 54601 **OR** other location specified by the DNR:

- (a) Two copies of a complete construction and operation permit application describing the proposed equipment;
- (b) An application fee of \$1350 or other amount as required by s. NR 410.03(1)(d), Wis. Adm. Code; and
- (c) Information describing how the interested persons group was notified of the proposed project. [ss. 299.80(10) and (11)(b), Wis. Stats.]

(2) The DNR shall process the permit application in accordance with ss. 285.60 through 285.69, Wis. Stats and ss. NR 406 and NR 407, Wis. Adm. Code, however, the permittee need not wait for permit issuance to commence construction. The DNR shall process the permit application as both a construction permit and a significant revision to this operation permit and issue both permits simultaneously to reduce the administrative burden of issuing a construction permit that expires 18 months after issuance followed by an operation permit. The DNR shall send an invoice outlining the fees required for processing the construction permit for the proposed project, including the fees for an expedited permit review authorized by s. NR 410.03(o), Wis. Adm. Code, less the \$1350 permit application fee. [ss. 299.80(2)(h), (4)(b), (10) and (11)(b), Wis. Stats.]

(3) The permittee shall pay the total amount of the fee invoice within 30 days of receipt.¹ [s. 299.80(10), Wis. Stats.]

¹ Pursuant to s. 299.80(10), Wis. Stats., a participant in a cooperative agreement shall pay the same fees required under chs. 280 to 295, Wis. Stats. that it would be required to pay if it had not entered into a cooperative agreement. Therefore, while the requirement to obtain a construction permit prior to installation is waived, the permittee is still required to pay the fees that would have been assessed had a construction permit been issued under ch. NR 406, wis. Adm. Code.

(4) The permittee shall continue to comply with all the requirements of Part I.A. of this permit so long as the cooperative agreement is in affect.² [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

(5) Nothing in this section or in any Cooperative Agreement between the DNR and the permittee shall be construed as a guarantee that the DNR will issue an air pollution control construction and operation permit for a proposed project. The decision on whether to approve a permit application will be made according to the requirements of chapters NR 400 through NR 499, Wis. Adm. Code and s. 285.60 through 285.69, Wis. Stats. If the DNR denies a permit application pursuant to ss 285.61 through 285.64, Wis. Stats. all costs and risks associated with installing and operating the proposed equipment shall be incurred solely by the permittee. In the event that the construction and operation permit application for the proposed project is denied, the permittee shall cease construction of the equipment in question immediately.

b. New Equipment Operation: The permittee may operate new process equipment, provided one of the following alternate scenarios are met. The following conditions do not apply if a proposed project is exempt from the requirement to obtain a construction permit, pursuant to s. NR 406.04, Wis. Adm. Code. [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

(1) *Alternate Scenario #1:* The permittee may operate new process equipment provided the permittee submits a complete construction and operation permit application as required by the conditions of I.A.5.a. and the DNR issues a construction permit pursuant to ss. 285.60 through 285.69, Wis. Stats and ss. NR 406 and NR 407, Wis. Adm. Code. The permittee shall operate the new process equipment in compliance with the conditions contained in any construction permit issued by the DNR. [s. NR 406.03, Wis. Adm. Code]

(2) *Alternate Scenario #2:* The permittee may initially operate new process equipment prior to obtaining a construction permit provided the permittee submits a complete construction and operation permit application as required by the conditions of I.A.5.a. and the following conditions are met: [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

(a) The permittee shall submit two copies of the following information to the DNR, La Crosse Area Office, 3550 Mormon Coulee Road, Room 104, La Crosse, WI, 54601 **OR** other location specified by the DNR, 14 calendar days prior to the date of initial operation:

- (i) Information identifying all applicable requirements from the Wisconsin Statutes, Wisconsin Administrative Code, and federal Clean Air Act for the proposed equipment;
- (ii) A quantification the air pollution emissions that would result from the proposed project;
- (iii) A computer dispersion modeling analysis showing the National Ambient Air Quality Standards will be protected if the proposed project results in an increase in potential particulate matter, sulfur dioxide, nitrogen oxide, and/or carbon monoxide emissions.

² By continuing to comply with the facility wide emission limitations outlined in Part I.A. the net emissions increase from any new sources or relocation of any existing sources from other facilities, will not exceed the major stationary source levels of s. NR 405.02(22)(a), Wis. Adm. Code triggering Prevention of Significant Deterioration (PSD) Requirements. The existing facility potential emissions of all criteria pollutants is less than 250 tons per year and the facility is not included in the source categories listed in s. NR 405.07(4), Wis. Adm. Code, therefore the existing facility is a synthetic minor source for PSD purposes. Note: This facility is not located in an area designated nonattainment. Also, by continuing to comply with the facility wide emissions limitations, the potential emissions increase from any new sources or relocated existing sources will not exceed 100 tons per year after controls for any criteria pollutant. Therefore none of the changes will be considered a Type II action requiring an environmental assessment. Finally, by continuing to comply with the facility wide emission limitations, the facility would not become a major source for Part 70 purposes for either volatile organic compound or hazardous air pollutant emissions. Requirement I.A.5.a.(1)(g) of this permit requires that any changes that result in potential facility wide emissions of particulate matter, sulfur dioxide, nitrogen oxide or carbon monoxide emissions exceeding 100 tons per year follow permit issuance requirements of chs. NR 406 and NR 407, Wis. Adm. Code.

(iv) A computer dispersion modeling analysis showing the Acceptable Ambient Concentrations will be protected if the proposed project results in an increase in emissions of any hazardous air pollutant listed in ch. NR 445, Wis. Adm. Code so that the resulting facility total emissions of the hazardous air pollutant are above the corresponding Table Value(s) OR results in the emission of any hazardous air pollutant listed in ch. NR 445, Wis. Adm. Code that was not previously emitted, at a rate greater than its corresponding Table Value(s); and (v) An analysis showing the proposed project will not cause the total facility wide potential emissions of particulate matter, sulfur dioxide, nitrogen oxides or carbon monoxide to exceed 100 tons per year. Any proposed new or relocated source that will result in the facility wide potential emissions of any one of these pollutants exceeding 100 tons per year is not eligible for this waiver. If the facility wide potential emissions of any one of the pollutants would be greater than 100 tons per year as the result of a proposed project, the permittee shall comply with the construction permit requirements outlined in ch. NR 406, Wis. Adm. Code and the significant operation permit revision requirements of s. NR 407.13, Wis. Adm. Code.³ [ss. 299.80(10) and (11)(b), Wis. Stats.]

(b) The DNR has 14 calendar days from the date that all the information outlined in (a) is received to request additional information or object to the proposed project. If the DNR requests additional information during the original 14 calendar day period the DNR shall have an additional 7 calendar days from the date of receipt of the information to request additional information or object to the proposed project. Under no scenario shall the DNR have less than 14 days to review original submittal. If the DNR does not respond within 14 calendar days from the date that all the information outlined in (a) is submitted, or within 7 days from the date that any additional information requested by the DNR is submitted, whichever is later, the permittee may commence initial operation of the proposed equipment. The DNR may provide written approval to commence initial operation of the proposed equipment prior to the end of the 14 calendar day period. If this is the case the permittee may commence initial operation upon receipt of this written approval. [ss. 299.80(2)(h) and (11)(b), Wis. Stats.]

(3) Alternate Scenario #3: The permittee may initially operate new process equipment prior to obtaining a construction permit provided the permittee submits a complete construction and operation permit application as required by the conditions of I.A.5.a. and the following conditions are met: [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

(a) The DNR provides written approval to commence initial operation of the proposed equipment. This written approval shall only be provided after the DNR completes an air quality dispersion modeling analysis to ensure that the national ambient air quality standards and acceptable ambient concentrations will be protected while the proposed equipment is operating; [s. NR 406.09, Wis. Adm. Code]

(b) The permittee shall comply with any specific conditions included in the DNR's written approval to commence initial operation;

(4) The permittee shall continue to comply with all the requirements of Part I.A. of this permit so long as the cooperative agreement is in affect.⁴ [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

³ This requirement is necessary because if the potential emissions of particulate matter, sulfur dioxide, nitrogen oxide or carbon monoxide emissions exceeds 100 tons the facility would be considered a major source for Part 70 purposes and would be required to obtain either a Part 70 source permit or a synthetic minor, non-Part 70 source permit containing conditions that limit the potential emissions of all criteria pollutants to less than 100 tons per year.

⁴ By continuing to comply with the facility wide emission limitations outlined in Part I.A. the net emissions increase from any new sources or relocation of any existing sources from other facilities, will not exceed the major stationary source levels of s. NR 405.02(22)(a), Wis. Adm. Code triggering Prevention of Significant Deterioration (PSD) Requirements. The existing facility potential emissions of all criteria pollutants is less than 250 tons per year and the facility is not included in the source categories listed in s. NR 405.07(4), Wis. Adm. Code, therefore the existing facility is a synthetic minor source for PSD

(5) Nothing in this section or in any Cooperative Agreement between the DNR and the permittee shall be construed as a guarantee that the DNR will issue an air pollution control construction and operation permit for a proposed project. The decision on whether to approve a permit application will be made according to the requirements of chapters NR 400 through NR 499, Wis. Adm. Code and s. 285.60 through 285.69, Wis. Stats. If the DNR denies a permit application pursuant to ss 285.61 through 285.64, Wis. Stats. all costs and risks associated with installing and operating the proposed equipment shall be incurred solely by the permittee. In the event that the construction and operation permit application for the proposed project is denied, the permittee shall cease construction and/or operation of the equipment in question immediately.

2. Item: *[West Salem Only – Processes P29, P37, P76, and P149]* Waiver from the requirements for Processes P29, P37, P76, and P149 at the West Salem Facility to comply with the reasonable available control technology (RACT) requirements for controlling volatile organic compound emissions.

Previous Requirements Superseded by this Agreement [source of the requirement]:

(1) 2 Roll Coating Machines P29: Requirement to limit volatile organic compound emissions from a miscellaneous metal parts or products coating line using baked or specially cured coating technology to not more than: (a) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (b) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (c) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. *[s. NR 422.15(2), Wis. Adm. Code, and conditions I.II.A.1.a., I.II.A.2., and I.II.A.3. of Air Pollution Control Permit 97-MWH-013]*

(2) 2 Roll Coating Machines P37: Requirement to limit volatile organic compound emissions from a miscellaneous metal parts or products coating line using baked or specially cured coating technology to not more than: (a) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (b) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (c) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. *[s. NR 422.15(2), Wis. Adm. Code and conditions I.A.1.a., I.A.2. and I.A.3. of Air Pollution Control Permit 98-RV-011.]*

(3) Roll Coating Line P76: Requirement to limit volatile organic compound emissions from a miscellaneous metal parts or products coating line using baked or specially cured coating technology to not more than: (a) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (b) 3.5 pounds per gallon of coating, excluding

purposes. Note: This facility is not located in an area designated nonattainment. Also, by continuing to comply with the facility wide emissions limitations, the potential emissions increase from any new sources or relocated existing sources will not exceed 100 tons per year after controls for any criteria pollutant. Therefore none of the changes will be considered a Type II action requiring an environmental assessment. Finally, by continuing to comply with the facility wide emission limitations, the facility would not become a major source for Part 70 purposes for either volatile organic compound or hazardous air pollutant emissions. Requirement I.A.5.a.(1)(g) of this permit requires that any changes that result in potential facility wide emissions of particulate matter, sulfur dioxide, nitrogen oxide or carbon monoxide emissions exceeding 100 tons per year follow permit issuance requirements of chs. NR 406 and NR 407, Wis. Adm. Code.

water, delivered to a coating applicator that applies extreme performance coatings; (c) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. [s. NR 422.15(2), Wis. Adm.Code.]

(4) Roll Coating Machine P149: Requirement to limit volatile organic compound emissions from a miscellaneous metal parts or products coating line using baked or specially cured coating technology to not more than: (a) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (b) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (c) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. [s. NR 422.15(2), Wis. Adm.Code.]

New Requirement: Volatile organic compound emissions from the entire Northern Engraving Corporation - West Salem facility may not exceed 85 tons per year averaged over each 12 consecutive month period.

3. Item: Waiver from individual process line latest available control technique (LACT) requirements for controlling volatile organic compound emissions.

Previous Requirements Superseded by this Agreement [source of the requirement]: Requirement to control volatile organic compound emissions from process lines on which construction or modification commenced on or after August 1, 1979, and which are not subject to emission limitations listed elsewhere in chs. NR 419 to 423 by at least 85 percent OR where 85 percent control had been demonstrated to be technologically infeasible, to control volatile organic compounds using the latest available control techniques and operating practices demonstrating best current technology, as approved by the DNR. [s. NR 424.03(2)(b) and (c), Wis. Adm. Code]

West Salem - LACT Permit Requirements:

Process P18: s. NR 424.03(2)(b) and (c), Wis. Adm. Code

Process P28: Permit 97-MWH-013 Condition I.I.A.1.

*Process P38: Permit 98-JCH-176 Conditions I.I. Applicable Limitation for VOCs
Conditions I.I.A.2.*

Process P56: Permit 02-MEC-617 Conditions I.A.1.

Process P70: Permit 89-IRS-041 Condition I.A.8.

*Permit 91-DCF-099 Condition I.H.1. Applicable Limitation for VOCs
Condition I.I.1. Applicable Limitation for VOCs
Condition I.J.1. Applicable Limitation for VOCs*

Permit 92-IRS-110 Condition I.A.1. Applicable Limitation for VOCs

Permit 93-POY-092 Condition I.D. Applicable Limitation for VOCs

*Process P76: Permit 98-JCH-176 Condition I.II. Applicable Limitation for VOCs
Condition I.II.2.a.*

Process P108: Permit 93-POY-092 Condition I.B. Applicable Limitation for VOCs

Process P113: Permit 93-POY-092 Condition I.C. Applicable Limitation for VOCs

Process P134: Permit 02-MEC-617 Condition I.B.1.

Process P139: Permit 02-MEC-617 Condition I.C.1.

Process P145: Permit 02-MEC-617 Condition I.D.1.

Process P147: Permit 02-MEC-617 Condition I.E.1.

Galesville – LACT Permit Requirements:

*Process P01: Permit 98-RV-042 Condition: I.I Applicable Limitation for VOCs
 Condition: I.I.2.a.
 Permit 97-RV-160-R1 Condition: I.I. Applicable Limitation for VOCs
 Condition: I.I.2.a.
 Permit 97-RV-160 Condition: I.I. Applicable Limitation for VOCs
 Condition: I.I.2.a.
 Alteration of permit 84-IRS-032 dated 5/27/87 for PSM-G-01, PSM-G-02,
 PSM-G-03, PSM-G-04, PSM-WS-79, PSM-G-10, PSM-G-11, PSM-G-12,
 PSM-G-13, PSM-G-14
 Permit 84-IRS-032A dated 5/3/89 Condition: I.A. Specific Emission Limitations
 for VOCs
 Permit 84-IRS-032 dated 11/9/84 Condition: I.A.30. Emission Limitation for OC
 Condition: I.A.43. Emission Limitation for OC
 Condition: I.A.49. Emission Limitation for OC
*Process P28: Permit 84-IRS-032 dated 12/20/89 Condition: I.A.2. Specific Emission
 Limitation for VOC**

New Requirement: Volatile organic compound emissions from each of the Galesville and West Salem Northern Engraving Corporation facilities may not exceed 85 tons per year averaged over each 12 consecutive month period.

4. Item: Monthly rather than daily record keeping requirements.

Previous Requirements Superseded by this Agreement [source of the requirement]: The following permit conditions require Northern Engraving to keep daily records:

West Salem – Daily Recordkeeping Requirements

Section NR 439.04(3), Wis. Adm. Code

Permit 89-IRS-041 Condition I.B.5.

Permit 91-DCF-099 Condition I.K.6.

Permit 92-IRS-110 Condition I.E.6.

Permit 93-POY-092 Facility Wide Permit Condition 6.

Permit 98-JCH-176 Entire Facility Condition 2.

Permit 97-MWH-013 Total Facility Limit 3.a.

Permit 98-RV-011 Total Facility Conditions 3.a. and 3.e.

Permit 02-MEC-617 Conditions I.F.1.b.(1), I.F.1.c.(1), I.F.2.b.(1), I.F.2.c.(1), and I.F.2.b.(4)

Galesville – Daily Recordkeeping Requirements

Section NR 439.04(3), Wis. Adm. Code

Permit 98-RV-042 Condition I.I.3.a.

Permit 97-RV-160-R1 Condition I.I.3.a.

Permit 97-RV-160 Condition I.I.4.a.

New Requirement: To demonstrate compliance status with the facility wide emission limitations for volatile organic compounds and hazardous air pollutants, Northern Engraving would be required to keep monthly records of emissions from each facility as follows:

(1) Each month the permittee shall calculate the total volatile organic compound emissions from the facility as follows:

$$E = (1 \text{ ton}/2000 \text{ lbs}) \times \{[(U_1 \times W_1 \times C_1) + (U_2 \times W_2 \times C_2) + \dots + (U_n \times W_n \times C_n)]\}$$

$$- [(S_1 \times P_1) + (S_2 \times P_2) + \dots + (S_m \times P_m)]\}$$

where:

E is the monthly VOC emissions (tons/month);

U is the monthly usage of each ink, coating, solvent, or other VOC containing material used during the month (gallons/month);

W is the density of each ink, coating, solvent, or other VOC containing material used during the month (pounds/gallon)

C is the VOC content of each ink, coating, solvent, or other VOC containing material used during the month expressed as a weight fraction (i.e. if a material is 25% VOC by weight C would be 0.25);

n identifies each ink, coating, solvent or other VOC containing material used during the month;

S is the amount of each spent ink, coating, solvent or other VOC containing material recovered and shipped off site each month (gallons/month);

P is the VOC content of each spent ink, coating, solvent or other VOC containing material recovered and shipped off site each month in pounds per gallon;

m identifies each spent ink, coating, solvent or other VOC containing material recovered and shipped off site during the month.

[s. NR 407.09(4)(a)1., Wis. Adm. Code]

(2) To demonstrate compliance with condition I.A.1.a.(1), the permittee shall calculate the total volatile organic compound emissions from the facility over each 12 consecutive month period by summing the monthly volatile organic compound emissions as calculated in I.A.1.b.(1) for each consecutive 12 month period. This calculation shall be performed within twenty calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]

(3) The permittee shall use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content (C_n) and the density (W_n) of the of the inks, coatings, solvents or other VOC containing materials used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code]

(4) The permittee shall analyze the spent ink, coating, solvent and other VOC containing material recovered and shipped off site to determine the VOC content (P) no less than: (a) each time there is a substantial change to materials or process operations that may affect the characteristics of the waste stream; or (b) quarterly, which ever is most frequent. [s. NR 439.04(1)(d), Wis. Adm. Code]

(5) The permittee shall keep records of the following for each ink, coating, solvent, or other VOC containing material used at the facility:

(a) A unique name or identification number; and

(b) The VOC content, expressed as a weight fraction (C_n).

[s. NR 439.04(1)(d), Wis. Adm. Code]

(6) The permittee shall keep monthly records of:

(a) The amount of each ink, coating, solvent, or other VOC containing material used in gallons per month (U_n);

(b) The density of each ink, coating, solvent, or other VOC containing material used in pounds per gallon (W_n);

(c) The amount of spent ink, coating, solvent, or other VOC containing material recovered and shipped off site in gallons per month (S_m);

(d) The VOC content of each spent ink, coating, solvent or other VOC containing material recovered and shipped off site in pounds per gallon (P_m).

(e) The total monthly VOC emissions from the facility in tons per month (E), as calculated in I.A.1.b.(1); and

(f) The total VOC emissions from the facility in tons per year as calculated in I.A.1.b.(2).

[s. NR 439.04(1)(d), Wis. Adm. Code]

(7) Each month the permittee shall calculate the total emissions of each hazardous air pollutant from the facility regulated by the Clean Air Act as follows:⁵

$$E_x = (1 \text{ ton}/2000 \text{ lbs}) \times \{[(U_1 \times W_1 \times H_1) + (U_2 \times W_2 \times H_2) + \dots + (U_n \times W_n \times H_n)] - [(S_1 \times I_1) + (S_2 \times I_2) + \dots + (S_m \times I_m)]\}$$

where:

E_x is the monthly emissions of each hazardous air pollutant regulated by the Clean Air Act (tons/month);

x identifies each HAP emitted from the facility

U is the monthly usage of each ink, coating, solvent, or other HAP containing material used during the month (gallons/month);

W is the density of each ink, coating, solvent, or other HAP containing material used during the month (pounds/gallon)

H is the HAP content of each ink, coating, solvent, or other HAP containing material used during the month expressed as a weight fraction (i.e. if a material is 25% HAP by weight H would be 0.25);

n identifies each ink, coating, solvent or other HAP containing material used during the month;

S is the amount of each spent ink, coating, solvent or other HAP containing material recovered and shipped off site each month (gallons/month);

I is the HAP content of each spent ink, coating, solvent or other HAP containing material recovered and shipped off site each month in pounds per gallon;

m identifies each spent ink, coating, solvent or other HAP containing material recovered and shipped off site during the month.

[s. NR 407.09(4)(a)1., Wis. Adm. Code]

(8) To demonstrate compliance with condition I.A.2.a.(1), the permittee shall calculate the emissions of each hazardous air pollutant regulated by the Clean Air Act over each 12 consecutive month period by summing the monthly emissions of each hazardous air pollutant regulated by the Clean Air Act as calculated in I.A.2.b.(1) for each consecutive 12 month period. This calculation shall be performed within twenty calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]

(9) Each month the permittee shall calculate the total emissions of hazardous air pollutants regulated by the Clean Air Act as follows:

$$E_{\text{hap}} = E_x$$

where:

E_{hap} is the monthly total emissions of all hazardous air pollutants regulated by the Clean Air Act that are emitted by the facility (tons/month);

E_x is the monthly emissions of each hazardous air pollutant regulated by the Clean Air Act (tons/month) as calculated in I.A.2.b.(1);

x identifies each HAP emitted from the facility.

[s. NR 407.09(4)(a)1., Wis. Adm. Code]

(10) To demonstrate compliance with condition I.A.2.a.(2), the permittee shall calculate the total emissions of all hazardous air pollutants regulated by the Clean Air Act over each 12 consecutive month period by summing the monthly emissions of all hazardous air pollutants regulated by the Clean Air Act as calculated in I.A.2.b.(3) for each consecutive 12 month period. This calculation shall be performed within fifteen calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]

⁵ This calculation shall be performed for each hazardous air pollutant regulated by the Clean Air Act that is emitted from the facility.

(11) The permittee shall use coating manufacturer's formulation data to determine the HAP content (H_n) of the of the inks, coatings, solvents or other HAP containing materials used. [s. NR 439.04(1)(d), Wis. Adm. Code]

(12) The permittee shall analyze the spent ink, coating, solvent and other HAP containing material recovered and shipped off site to determine the HAP content (H) no less than: (a) each time there is a substantial change to materials or process operations that may affect the characteristics of the waste stream; or (b) quarterly, which ever is most frequent. [s. NR 439.04(1)(d), Wis. Adm. Code]

(13) The permittee shall keep records of the following for each ink, coating, solvent, or other HAP containing material used at the facility:

- (a) A unique name or identification number; and
 - (b) The weight fraction of each HAP contained in the material (H_n).
- [s. NR 439.04(1)(d), Wis. Adm. Code]

(14) The permittee shall keep monthly records of:

- (a) The amount of each ink, coating, solvent, or other HAP containing material used in gallons per month (U_n);
 - (b) The density of each ink, coating, solvent, or other HAP containing material used in pounds per gallon (W_n);
 - (c) The amount of spent ink, coating, solvent, or other HAP containing material recovered and shipped off site in gallons per month (S_m);
 - (d) The amount of each HAP contained in each spent ink, coating, solvent or other HAP containing material recovered and shipped off site in pounds per gallon (I_m);
 - (e) The facility total monthly emissions of each HAP in tons per month (E_x), as calculated in I.A.2.b.(1);
 - (f) The total monthly HAP emissions from the facility in tons per month (E_{hap}), as calculated in I.A.2.b.(3);
 - (g) The facility total emissions of each HAP in tons per year as calculated in I.A.2.b.(2).
 - (h) The total HAP emissions from the facility in tons per year as calculated in I.A.2.b.(4).
- [s. NR 439.04(1)(d), Wis. Adm. Code]

(15) Report actual facility wide volatile organic compound and hazardous air pollutant emissions as follows:

- (a) The permittee shall submit a report summarizing the actual, facility wide volatile organic compound and hazardous air pollutant emissions for each consecutive 12 month period as calculated in conditions I.A.1.b.(2) and I.A.2.b.(2) and (4), every 6 months.
 - (b) The period addressed by the report shall be the 6 month period starting on the date the Cooperative Agreement is signed or other date agreed upon and approved by DNR, U.S. EPA and the permittee, and each subsequent 6 month period thereafter.
 - (c) A copy of the report shall be submitted to the DNR (Marty Sellers, Air Management Engineer, Department of Natural Resources, 3550 Mormon Coulee Road, La Crosse, WI 54601) and the U.S. EPA (Steve Rothblatt, Branch Chief, Air Program Branch, U.S. EPA, 77 W. Jackson Blvd., Mailcode: AR-18J, Chicago, IL 60604) within twenty days following the end of the reporting period.
 - (d) If the report shows the actual facility wide volatile organic compound or hazardous air pollutant emissions have exceeded 50 percent of the allowable limitations outlined in conditions I.A.1.a and I.A.2.a.(1) and (2), the permittee shall provide an explanation why emissions reached the levels that they did and how they intend to ensure emissions will not exceed the allowable limitations outlined in conditions I.A.1.a. and I.A.2.a.(1) and (2).
- [s. NR 439.03(1)(a), Wis. Adm. Code]